



The U.S. Attorney General has determined that the publication of this periodical is necessary in the transaction of the public business required by the Department of Justice. Information, instruction, and disclaimers are published in the January issues.

#### **- DECEMBER 2012 -**

#### **SELECTED REFERENCES**

[The Selected References section is a compilation of recent publications of presumed interest to forensic chemists. Unless otherwise stated, all listed citations are published in English. Abbreviated mailing address information duplicates that which is provided by the abstracting service. Patents and Proceedings are reported only by their *Chemical Abstracts* citation number. For full text copies of any of the articles listed, you may email the DEA Library at dea.library@usdoj.gov.]

- 1. Abiedalla YFH, Abdel-Hay K, DeRuiter J, Clark CR. Synthesis and GC-MS analysis of a series of homologs and regioisomers of 3,4-methylenedioxypyrovalerone (MDPV). Forensic Science International 2012;223(1-3):189-197. [Editor's Notes: Presents title study. Contact: Department of Pharmacal Sciences, Harrison School of Pharmacy, Auburn University, Auburn, AL 36849, USA.]
- 2. Couch RAF, Madhavaram H. **Phenazepam and cannabinomimetics sold as herbal highs in New Zealand.** Drug Testing and Analysis 2012;4(6):409-414. [Editor's Notes: Presents title study. Contact: Auckland City Hospital, Auckland, New Zealand.]
- 3. Ivanova B, Spiteller M. Quantitative analysis of substituted N,N-dimethyl-tryptamines in the presence of natural type XII alkaloids. Natural Product Communications 2012;7(10):1273-1276. [Editor's Notes: This paper presents the qualitative and quantitative analysis of N,N-dimethyltryptamine, 5-methoxy-N,N-dimethyltryptamine, and 5-hydroxy-N,N-dimethyltryptamine in the presence of β-carbolines by HPLC, ESI-MS, MALDI-MS, and Raman spectroscopy. Contact: Institute of Environmental Research, Department of Environmental Chemistry and Analytical Chemistry, University of Dortmund, Dortmund 44221, Germany.]

- 4. NicDaeid N, Meier-Augenstein W, Kemp HF, Sutcliffe OB. Using isotopic fractionation to link precursor to product in the synthesis of (±)-mephedrone: A new tool for combating "legal high" drugs. Analytical Chemistry 2012;84(20):8691-8696. [Editor's Notes: Presents title study. Contact: Centre for Forensic Science, Department of Pure and Applied Chemistry, University of Strathclyde, Glasgow, United Kingdom.]
- 5. Power JD, McDermott SD, Talbot B, O'Brien JE, Kavanagh P. The analysis of amphetamine-like cathinone derivatives using positive electrospray ionization with in-source collision-induced dissociation. Rapid Communications in Mass Spectrometry 2012;26(22):2601-2611. [Editor's Notes: Presents title study. Contact: Forensic Science Laboratory, Garda HQ, Dublin 8, Ireland.]
- 6. Valoti E, Casagni E, Dell'Acqua L, Pallavicini M, Roda G, Rusconi C, Straniero V, Gambaro V. Identification of 1-butyl-3-(1-(4-methyl)naphtoyl)indole detected for the first time in "herbal high" products on the Italian market. Forensic Science International 2012;223(1-3):e42-e46. [Editor's Notes: Presents title study. Contact: Dipartimento di Scienze Farmaceutiche "Pietro Pratesi," Universita degli Studi di Milano, Milan I-20133, Italy.]
- 7. Westphal F, Junge T. Ring positional differentiation of isomeric N-alkylated fluorocathinones by gas chromatography/tandem mass spectrometry. Forensic Science International 2012;223(1-3):97-105. [Editor's Notes: Presents title study. Contact: Section Narcotics/Toxicology, State Bureau of Criminal Investigation Schleswig-Holstein, Kiel D-24116, Germany.]

## **Additional References of Possible Interest:**

- 1. Fragkaki AG, Farmaki E, Thomaidis N, Tsantili-Kakoulidou A, Angelis YS, Koupparis M, Georgakopoulos C. Comparison of multiple linear regression, partial least squares and artificial neural networks for prediction of gas chromatographic relative retention times of trimethylsilylated anabolic androgenic steroids. Journal of Chromatography, A 2012;1256:232-239. [Editor's Notes: Presents title study. Contact: Doping Control Laboratory of Athens, Olympic Athletic Center of Athens "Spyros Louis," Kifisias 37, Maroussi, Greece 15123.]
- 2. Juerschik S, Agarwal B, Kassebacher T, Sulzer P, Mayhew CA, Maerk TD. Rapid and facile detection of four date rape drugs in different beverages utilizing proton transfer reaction mass spectrometry (PTR-MS). Journal of Mass Spectrometry 2012;47(9):1092-1097. [Editor's Notes: The analysis of four date rape drugs (chloral hydrate, trichloroethanol, GBL, and 1,4-butanediol) in several beverages by Proton Transfer Reaction Mass Spectrometry (PTR-MS) is presented. Sample introduction by dynamic headspace sampling and direct liquid injection are also compared. Contact: IONICON Analytik GmbH, 6020 Innsbruck, Austria.]
- 3. Koskela H, Hakala U, Loiske L, Vanninen P, Szilvay I. **Separation and structural characterization of a synthetic cannabinoid found in a herbal product using off-line LC-DAD-NMR.** Analytical Methods 2011;3(10):2307-2312. [Editor's Notes: Components of seized "herbal products" which could not be identified by GC/MS

analysis were characterized using an off-line LC-DAD-NMR technique. The structural analysis revealed a CP 47,497-C8 homologue type compound. Contact: VERIFIN, University of Helsinki, FIN-00014 Helsinki, Finland.]

4. Murphy TM, Bola G. **DNA identification of Salvia divinorum samples.** Forensic Science International: Genetics 2013;7(1)189-193. [Editor's Notes: Presents title study. Contact: Department of Plant Biology, University of California, Davis, CA 95616, USA.]

\*\*\*\*\* \*\*\*\*\* \*\*\*\*\* \*\*\*\*

#### THE DEA STATE AND LOCAL FORENSIC CHEMISTS SEMINAR SCHEDULE

The schedule for the DEA State and Local Forensic Chemists Seminar is as follows:

March 11 - 15, 2013 June 10 - 14, 2013 September 16 - 20, 2013 November 4 - 8, 2013

The school is open only to forensic chemists working for law enforcement agencies. It is intended for chemists who have completed their agency's internal training program and have also been working on the bench for at least one year. There is no tuition charge. The course is held at the Hyatt Place Dulles North Hotel in Sterling, Virginia (near the Washington/Dulles International Airport). A copy of the application form is reproduced on the last page of this issue of *Microgram Bulletin*. Completed applications should be mailed to the Special Testing and Research Laboratory at 22624 Dulles Summit Court, Dulles, VA 20166. For additional information, email <u>DEA-Forensic.Chemist.Seminar@usdoj.gov</u>.

### Microgram Journal Index (by Author)

Author	Title	Year	Vol	No	Page
Ali-Tolppa E	Identification of a new amphetamine type stimulant: 3,4-Methylenedioxy-(2-hydroxyethyl)amphetamine (MDHOET).	2005	3	3-4	166-174
Allred RA	Spectral characterization of 2,4-dimethoxy-3-methylphenethylamine and comparison to 2,5-dimethoxy-4-methylphenethylamine ("2C-D").	2005	3	1-2	16-26
Allred RA.	Synthesis of trans-4-methylaminorex from norephedrine and potassium cyanate.	2005	3	3-4	154-165
Almog J	Evaluation of ninhydrin analogues and other electron-deficient compounds as spray reagents for drugs on thin layer chromatograms.	2003	1	1-2	23-31
Azoury M	Evaluation of ninhydrin analogues and other electron-deficient compounds as spray reagents for drugs on thin layer chromatograms.	2003	1	1-2	23-31
Berrier A	Detection of phenethylamine, amphetamine, and tryptamine imine by-products from an acetone extraction.	2011	8	1	29-35
Berrier AL	The characterization of 2-(3-methoxyphenyl)-2-(ethylamino)-cyclohexanone (methoxetamine).	2012	9	1	3-17

Bianchi RP	Laboratory analysis of the conversion of pseudoephedrine to methamphetamine from over-the-counter products.	2005	3	1-2	11-15
Blackledge RD	Psychotria viridis - A botanical source of dimethyltryptamine (DMT).	2003	1	1-2	18-22
Blackledge RD	The identification of 1-dehydromethandrostenolone.	2005	3	3-4	186-189
Blackledge RD	Identification of bufotenine in yopo seeds via GC/IRD.	2006	4	1-4	3-11
Bono JP	Report of the Scientific Working Group for the Analysis of Seized Drugs (SWGDRUG) conference (Montreal).	2003	1	3-4	208-236
Bordelon JA	Desloratadine: The reaction byproduct of the reduction of cold tablets containing Loratadine with hydriodic acid/red phosphorus.	2005	3	1-2	69-77
Boudreau DK	An in-depth study of Peruvian Base Llavada ("Washed Base") technique for purification of crude cocaine base.	2008	6	3-4	72-81
Bourdreau DK	"Crack" cocaine: A study of stability over time and temperature.	2008	6	3-4	114-127
Bozenko JS	Identification of a new amphetamine type stimulant: 3,4-Methylenedioxy-(2-hydroxyethyl)amphetamine (MDHOET).	2005	3	3-4	166-174
Bozenko JS	Characterization of the "indanylamphetamines."	2005	3	1-2	3-10
Bozenko JS	The characterization of 3,4-methylenedioxypyrovalerone (MDPV).	2010	7	1	12-15
Bozenko JS	The characterization of anastrozole.	2011	8	1	12-15
Bozenko JS	Chiral separation of methamphetamine and related compounds using capillary electrophoresis with dynamically coated capillaries.	2011	8	1	24-28
Brousseau MM	Reduction of phenylephrine with hydriodic acid/red phosphorus or iodine/red phosphorus: 3-Hydroxy-N-methylphenethylamine.	2005	3	3-4	142-153
Bruneel N	A rapid and simple GC/MS screening method for 4-methoxyphenol in illicitly prepared 4-methoxy-amphetamine (PMA).	2003	1	3-4	184-189
Bruneel N	Anise oil as a precursor for 2-alkoxy-5-methoxybenzaldehydes.	2004	2	1-4	4-10
Bynum ND	Comparison of the novel direct analysis in real time time-of-flight mass spectrometry (AccuTOF-DART <sup>TM</sup> ) and signature analysis for the identification of constituents of refined illicit cocaine.	2007	5	1-4	34-40
Casale EM	Identification of levamisole and lidocaine acetylation reaction impurities found in heroin exhibits.	2011	8	1	16-23
Casale JF	Hydroxyzine: An analytical profile.	2004	2	1-4	17-21
Casale JF	Characterization of the "indanylamphetamines."	2005	3	1-2	3-10
Casale JF	Assessment of the volatility (smokeability) of cocaine base containing 50 percent mannitol: Is it a smokeable form of "crack" cocaine?	2005	3	1-4	130-133
Casale JF	Isolation of cis-cinnamoylcocaine from crude illicit cocaine via alumina column chromatography.	2006	4	1-4	37-41

Casale JF	The characterization of 4-methoxy-N-ethylamphetamine hydrochloride.	2006	4	1-4	42-46
Casale JF	Quantitation of cocaine by gas chromatography-flame ionization detection utilizing isopropylcocaine as a structurally related internal standard.	2006	4	1-4	47-53
Casale JF	Comparison of the novel direct analysis in real time time-of-flight mass spectrometry (AccuTOF-DART <sup>TM</sup> ) and signature analysis for the identification of constituents of refined illicit cocaine.	2007	5	1-4	34-40
Casale JF	The use of dipropionylmorphine as a structurally-related internal standard for gas chromatographic quantitation of heroin.	2008	6	1-2	3-9
Casale JF	An in-depth study of Peruvian Base Llavada ("Washed Base") technique for purification of crude cocaine base.	2008	6	3-4	72-81
Casale JF	Identification of levamisole impurities found in illicit cocaine exhibits.	2008	6	3-4	82-89
Casale JF	Identification of diltiazem impurities/artifacts during the analysis of illicit cocaine exhibits containing diltiazem.	2008	6	3-4	90-103
Casale JF	Determination of cocaine in various South American commercial coca products.	2008	6	3-4	109-113
Casale JF	"Crack" cocaine: A study of stability over time and temperature.	2008	6	3-4	114-127
Casale JF	The discoloration of illicit drug samples.	2008	6	3-4	128-145
Casale JF	N-Acetylbenzocaine: Formation via transacetylation of benzocaine and acetylsalicylic acid in a cocaine exhibit.	2010	7	1	7-11
Casale JF	The mass spectrum of cocaine: Deuterium labeling and MS/MS studies.	2010	7	1	16-41
Casale JF	Characterization of $2\beta$ -(1,2,4-oxadiazol-5-methyl)-3 $\beta$ -phenyltropane ("RTI-126").	2011	8	1	3-11
Casale JF	Identification of levamisole and lidocaine acetylation reaction impurities found in heroin exhibits.	2011	8	1	16-23
Casale JF	4-Methoxyphencyclidine: An analytical profile.	2011	8	2	39-42
Casale JF	Characterization of the "methylenedioxy-2-aminoindans."	2011	8	2	43-52
Casale JF	Methiopropamine: An analytical profile.	2011	8	2	53-57
Casale JF	Ethylphenidate: An analytical profile.	2011	8	2	58-61
Casale JF	The characterization of 2-(3-methoxyphenyl)-2-(ethylamino)-cyclohexanone (methoxetamine).	2012	9	1	3-17
Casale JF	The characterization of 4- and 5-iodo-2-aminoindan.	2012	9	1	18-26
Casale JF	The characterization of α-pyrrolidinopentiophenone.	2012	9	1	33-38
Casale JF	The characterization of 2-(5-methoxy-1-benzofuran-3-yl)-N,N-dimethylethanamine (5-MeO-BFE) and differentiation from its N-ethyl analog.	2012	9	1	39-45

Letter to the Editor regarding: Abbreviations for 5- and 6-(2-amino-propyl)-2,3-dihydrobenzofuran vs. 5- and 6-(2-aminopropyl)benzofuran: A clarification of "APB" and "APDB."	2012	9	1	46
1,4-Butanediol (BD) - Forensic profile.	2003	1	1-2	44-54
The identification of N,N-dimethylamphetamine (DMA) in an exhibit in Malaysia.	2003	1	3-4	163-168
The quantitation of nimetazepam in Erimin-5 tablets and powders by reverse-phase HPLC.	2004	2	1-4	27-33
The identification of N,N-dimethylamphetamine (DMA) in an exhibit in Malaysia.	2003	1	3-4	163-168
The quantitation of nimetazepam in Erimin-5 tablets and powders by reverse-phase HPLC.	2004	2	1-4	27-33
Identification of diltiazem impurities/artifacts during the analysis of illicit cocaine exhibits containing diltiazem.	2008	6	3-4	90-103
Analytical profiles for five "designer" tryptamines.	2005	3	1-2	54-68
Characterization of three methcathinone analogs: 4-Methylmeth- cathinone, methylone, and bk-MBDB.	2010	7	2	42-49
Isolation of cis-cinnamoylcocaine from crude illicit cocaine via alumina column chromatography.	2006	4	1-4	37-41
Identification of levamisole impurities found in illicit cocaine exhibits.	2008	6	3-4	82-89
Determination of cocaine in various South American commercial coca products.	2008	6	3-4	109-113
Rapid chiral separation of dextro- and levo- methorphan using capillary electrophoresis with dynamically coated capillaries.	2005	3	3-4	138-141
An overview of DNA methods for the identification and individualization of marijuana.	2003	1	3-4	196-207
Synthesis and identification of N,N-dimethylcathinone hydrochloride.	2007	5	1-4	3-12
A study of acids used for the acidified cobalt thiocyanate test for cocaine base.	2003	1	1-2	40-43
γ-Hydroxybutyrate, silver salt (AgGHB): Identification of γ-hydroxybutyrate (GHB) via conversion to the silver salt.	2005	3	1-2	46-53
Desloratadine: The reaction byproduct of the reduction of cold tablets containing Loratadine with hydriodic acid/red phosphorus.	2005	3	1-2	69-77
Discovery of an interesting temperature effect on the sensitivity of cobalt thiocyanate test for cocaine.	2008	6	1-2	26-35
Identification of a new amphetamine type stimulant: 3,4-Methylenedioxy-(2-hydroxyethyl)amphetamine (MDHOET).	2005	3	3-4	166-174
Qualitative and quantitative analysis of Ionamin 30 capsules (containing a time-release formulation of phentermine).	2006	4	1-4	66-69
The isolation, identification, and quantitation of dimethyltryptamine (DMT) in Mimosa hostilis.	2007	5	1-4	41-52
	propyl)-2,3-dihydrobenzofuran vs. 5- and 6-(2-aminopropyl)benzofuran: A clarification of "APB" and "APDB."  1,4-Butanediol (BD) - Forensic profile.  The identification of N,N-dimethylamphetamine (DMA) in an exhibit in Malaysia.  The quantitation of nimetazepam in Erimin-5 tablets and powders by reverse-phase HPLC.  The identification of N,N-dimethylamphetamine (DMA) in an exhibit in Malaysia.  The quantitation of nimetazepam in Erimin-5 tablets and powders by reverse-phase HPLC.  Identification of diltiazem impurities/artifacts during the analysis of illicit cocaine exhibits containing diltiazem.  Analytical profiles for five "designer" tryptamines.  Characterization of three metheathinone analogs: 4-Methylmeth-cathinone, methylone, and bk-MBDB.  Isolation of cis-cinnamoylcocaine from crude illicit cocaine via alumina column chromatography.  Identification of levamisole impurities found in illicit cocaine exhibits.  Determination of cocaine in various South American commercial coca products.  Rapid chiral separation of dextro- and levo- methorphan using capillary electrophoresis with dynamically coated capillaries.  An overview of DNA methods for the identification and individualization of marijuana.  Synthesis and identification of N,N-dimethylcathinone hydrochloride.  A study of acids used for the acidified cobalt thiocyanate test for cocaine base.  γ-Hydroxybutyrate, silver salt (AgGHB): Identification of γ-hydroxybutyrate (GHB) via conversion to the silver salt.  Desloratadine: The reaction byproduct of the reduction of cold tablets containing Loratadine with hydriodic acid/red phosphorus.  Discovery of an interesting temperature effect on the sensitivity of cobalt thiocyanate test for cocaine.  Identification of a new amphetamine type stimulant: 3,4-Methylenedioxy-(2-hydroxyethyl)amphetamine (MDHOET).  Qualitative and quantitative analysis of Ionamin 30 capsules (containing a time-release formulation of phentermine).	propyl)+2,3-dihydrobenzofuran vs. 5- and 6-(2-aminopropyl)benzofuran:         2012           1,4-Butanediol (BD) - Forensic profile.         2003           The identification of N,N-dimethylamphetamine (DMA) in an exhibit in Malaysia.         2004           The quantitation of nimetazepam in Erimin-5 tablets and powders by reverse-phase HPLC.         2004           The identification of N,N-dimethylamphetamine (DMA) in an exhibit in Malaysia.         2003           The quantitation of nimetazepam in Erimin-5 tablets and powders by reverse-phase HPLC.         2004           Identification of ditazem impurities/artifacts during the analysis of illicit cocaine exhibits containing diltiazem.         2008           Analytical profiles for five "designer" tryptamines.         2005           Characterization of three methcathinone analogs: 4-Methylmeth-cathinone, methylone, and bk-MBDB.         2010           Isolation of cis-cinnamoyleocaine from crude illicit cocaine via alumina column chromatography.         2006           Identification of levamisole impurities found in illicit cocaine exhibits.         2008           Determination of cocaine in various South American commercial coca products.         2008           Rapid chiral separation of dextro- and levo- methorphan using capillary electrophoresis with dynamically coated capillaries.         2005           An overview of DNA methods for the identification and individualization of marijuana.         2005           Synthesis and identification of N,N-dimeth	propyl-2,3-dihydrobenzofuran vs. 5- and 6-(2-aminopropyl)benzofuran:         2012         9           1,4-Butanediol (BD) - Forensic profile.         2003         1           The identification of N,N-dimethylamphetamine (DMA) in an exhibit in Malaysia.         2004         2           The identification of N,N-dimethylamphetamine (DMA) in an exhibit in Malaysia.         2004         2           The identification of N,N-dimethylamphetamine (DMA) in an exhibit in Malaysia.         2003         1           The quantitation of nimetazepam in Erimin-5 tablets and powders by reverse-phase HPLC.         2004         2           Identification of dilitiazem impurities/artifacts during the analysis of illicit cocaine exhibits containing dilitiazem.         2008         6           Analytical profiles for five "designer" tryptamines.         2005         3           Characterization of three methcathinone analogs: 4-Methylmeth-cathinone, methylone, and bk-MBDB.         2010         7           Isolation of cis-cinnamoylcocaine from crude illicit cocaine via alumina column chromatography.         2006         4           Identification of levamisole impurities found in illicit cocaine exhibits.         2008         6           Determination of cocaine in various South American commercial coca products.         2008         6           Rapid chiral separation of dextro- and levo- methorphan using capillary electrophoresis with dynamically coated capillaries.         2005	propyly-2.3-dihydrobenzofuran vs. 5- and 6-(2-aminopropyl)benzofuran:  1,4-Butanediol (BD) - Forensic profile.  2003 1 1-2  The identification of N,N-dimethylamphetamine (DMA) in an exhibit in Malaysia.  The quantitation of nimetazepam in Erimin-5 tablets and powders by reverse-phase HPLC.  The identification of N,N-dimethylamphetamine (DMA) in an exhibit in Malaysia.  The quantitation of nimetazepam in Erimin-5 tablets and powders by reverse-phase HPLC.  The identification of N,N-dimethylamphetamine (DMA) in an exhibit in Malaysia.  The quantitation of nimetazepam in Erimin-5 tablets and powders by reverse-phase HPLC.  Identification of dilitiazem impurities/artifacts during the analysis of illicit cocaine chibits containing dilitiazem.  Analytical profiles for five "designer" tryptamines.  2005 3 1-2  Characterization of three metheathinone analogs: 4-Methylmeth-cathinone, methylone, and bk-MBDB.  Isolation of cis-cinnamoylcocaine from crude illicit cocaine via alumina column chromatography.  Identification of levamisole impurities found in illicit cocaine exhibits.  2006 4 1-4  Determination of cocaine in various South American commercial coca products.  Rapid chiral separation of dextro- and levo- methorphan using capillary electrophoresis with dynamically coated capillaries.  An overview of DNA methods for the identification and individualization of marijuana.  Synthesis and identification of N,N-dimethylcathinone hydrochloride.  2007 5 1-4  A study of acids used for the acidified cobalt thiocyanate test for cocaine base.  Pellydroxybutyrate, silver salt (AgGHB): Identification of γ-hydroxy-butyrate (GHB) via conversion to the silver salt.  Pelsoratadine: The reaction byproduct of the reduction of cold tablets containing Loratadine with hydrodic acid/red phosphorus.  Discovery of an interesting temperature effect on the sensitivity of cobalt thiocyanate test for cocaine in thiocyanate test for cocaine in thiocyanate test for cocaine on the silver salt.  Qualitative and quantitative analysis of lonamin 30

Franckowski RE	Eszopiclone (Lunesta™): An analytical profile.	2006	4	1-4	29-36
Frohwein AK	Identification and quantitation of hydromorphone hydrochloride in Palladone® (extended time-release) capsules.	2005	3	1-2	39-45
Fu S	Color tests for the preliminary identification of methcathinone and analogues of methcathinone.	2012	9	1	27-32
Fucci N	Analysis of fatty acids in marijuana (Cannabis sativa leaf).	2007	5	1-4	20-25
Fuentecilla K.	Levamisole: An analytical profile.	2005	3	3-4	134-137
Garcia AD	1,4-Butanediol (BD) - Forensic profile.	2003	1	1-2	44-54
Geer LC	Letrozole (Femara®).	2003	1	3-4	190-195
Geer LC	Analytical profiles for five "designer" tryptamines.	2005	3	1-2	54-68
Goren Z	Evaluation of ninhydrin analogues and other electron-deficient compounds as spray reagents for drugs on thin layer chromatograms.	2003	1	1-2	23-31
Gratz SR	Identification and determination of carisoprodol in tablets by liquid chromatography/mass spectrometry.	2004	2	1-4	36-41
Greenfield SJ	Chiral separation of methamphetamine and related compounds using capillary electrophoresis with dynamically coated capillaries.	2011	8	1	24-28
Hanson AJ	Specificity of the Duquenois-Levine and cobalt thiocyanate tests substituting methylene chloride or butyl chloride for chloroform.	2005	3	3-4	183-185
Harman AL	Reduction of phenylephrine with hydriodic acid/red phosphorus or iodine/red phosphorus: 3-Hydroxy-N-methylphenethylamine.	2005	3	3-4	142-153
Hays PA	Letrozole (Femara®).	2003	1	3-4	190-195
Hays PA	Characterization of the "indanylamphetamines."	2005	3	1-2	3-10
Hays PA	Identification and quantitation of hydromorphone hydrochloride in Palladone® (extended time-release) capsules.	2005	3	1-2	39-45
Hays PA	Analytical profiles for five "designer" tryptamines.	2005	3	1-2	54-68
Hays PA	The characterization of 4-methoxy-N-ethylamphetamine hydrochloride.	2006	4	1-4	42-46
Hays PA	Dehydrochlormethyltestosterone: An analytical profile.	2006	4	1-4	54-65
Hays PA	Identification of levamisole impurities found in illicit cocaine exhibits.	2008	6	3-4	82-89
Hays PA	Identification of diltiazem impurities/artifacts during the analysis of illicit cocaine exhibits containing diltiazem.	2008	6	3-4	90-103
Hays PA	Characterization of $2\beta$ -(1,2,4-oxadiazol-5-methyl)- $3\beta$ -phenyltropane ("RTI-126").	2011	8	1	3-11

Hays PA	Characterization of the "methylenedioxy-2-aminoindans."	2011	8	2	43-52
Hays PA	Methiopropamine: An analytical profile.	2011	8	2	53-57
Hays PA	Ethylphenidate: An analytical profile.	2011	8	2	58-61
Hays PA	The characterization of 2-(3-methoxyphenyl)-2-(ethylamino)-cyclohexanone (methoxetamine).	2012	9	1	3-17
Hays PA	The characterization of 4- and 5-iodo-2-aminoindan.	2012	9	1	18-26
Hays PA	The characterization of α-pyrrolidinopentiophenone.	2012	9	1	33-38
Hays PA	The characterization of 2-(5-methoxy-1-benzofuran-3-yl)-N,N-dimethylethanamine (5-MeO-BFE) and differentiation from its N-ethyl analog.	2012	9	1	39-45
Hays PA.	Detection and analysis of drugs of forensic interest, 1992 - 2001; A literature review.	2003	1	1-2	55-153
Hermans B	A rapid and simple GC/MS screening method for 4-methoxyphenol in illicitly prepared 4-methoxyamphetamine (PMA).	2003	1	3-4	184-189
Inoue H	Analytical profiles for 3,4,5-, 2,4,5-, and 2,4,6-trimethoxyamphetamine.	2006	4	1-4	12-23
Iwata Y	Analytical profiles for 3,4,5-, 2,4,5-, and 2,4,6-trimethoxyamphetamine.	2006	4	1-4	12-23
Jacobs JL	Isolation of methamphetamine from 1-(1',4'-cyclohexa-dienyl)-2-methylaminopropane (CMP) using potassium permanganate.	2008	6	1-2	46-54
Jones LM	"Crack" cocaine: A study of stability over time and temperature.	2008	6	3-4	114-127
Juliano N	An overview of DNA methods for the identification and individualization of marijuana.	2003	1	3-4	196-207
Kanamori T	Analytical profiles for 3,4,5-, 2,4,5-, and 2,4,6-trimethoxyamphetamine.	2006	4	1-4	12-23
Kaprawi MM	The quantitation of nimetazepam in Erimin-5 tablets and powders by reverse-phase HPLC.	2004	2	1-4	27-33
Kerr SC	The use of dipropionylmorphine as a structurally-related internal standard for gas chromatographic quantitation of heroin.	2008	6	1-2	3-9
Kiddon GS	The characterization of three FLY compounds.	2007	5	1-4	26-33
Kirby DA	The characterization of N-methylphthalimide (NMP).	2011	8	2	36-38
Kitlinski LM	Reduction of phenylephrine with hydriodic acid/red phosphorus or iodine/red phosphorus: 3-Hydroxy-N-methylphenethylamine.	2005	3	3-4	142-153
Klein RFX	Detection and analysis of drugs of forensic interest, 1992 - 2001; A literature review.	2003	1	1-2	55-153
Koper C	Identification of a new amphetamine type stimulant: 3,4-Methylenedioxy-(2-hydroxyethyl)amphetamine (MDHOET).	2005	3	3-4	166-174

Krawczeniuk AS	Identification of phenethylamines and methylenedioxyamphetamines using liquid chromatography atmospheric pressure electrospray ionization mass spectrometry.	2005	3	1-2	78-100
Kraymen N	Color tests for the preliminary identification of methcathinone and analogues of methcathinone.	2012	9	1	27-32
Kurobane S	Profiling of ecstasy tablets seized in Japan.	2003	1	3-4	169-176
Kuwayama K	Analytical profiles for 3,4,5-, 2,4,5-, and 2,4,6-trimethoxyamphetamine.	2006	4	1-4	12-23
Ladd C	An overview of DNA methods for the identification and individualization of marijuana.	2003	1	3-4	196-207
Layton SM	Instrumental separation of 3,4-methylenedioxyamphetamine (MDA) from 1-(3,4-methylenedioxyphenyl)-2-propanol, a co-eluting compound.	2003	1	1-2	32-36
Lee HC	An overview of DNA methods for the identification and individualization of marijuana.	2003	1	3-4	196-207
Li Li	Chiral separation of methamphetamine and related compounds using capillary electrophoresis with dynamically coated capillaries.	2011	8	1	24-28
Lurie IS	Identification and quantitation of hydromorphone hydrochloride in Palladone® (extended time-release) capsules.	2005	3	1-2	39-45
Lurie IS	Rapid chiral separation of dextro- and levo- methorphan using capillary electrophoresis with dynamically coated capillaries.	2005	3	3-4	138-141
Lurie IS	Chiral separation of methamphetamine and related compounds using capillary electrophoresis with dynamically coated capillaries.	2011	8	1	24-28
Majeed I	A specific screening color test for diazepam.	2008	6	3-4	63-71
Majeux CR	Characterization of three methcathinone analogs: 4-Methylmethcathinone, methylone, and bk-MBDB.	2010	7	2	42-49
Makino Y	Profiling of ecstasy tablets seized in Japan.	2003	1	3-4	169-176
Martinez FS	Isolation of methamphetamine from 1-(1',4'-cyclohexadienyl)-2-methylaminopropane (CMP) using potassium permanganate.	2008	6	1-2	46-54
Maurer HH	Mass spectra of select benzyl- and phenyl- piperazine designer drugs.	2004	2	1-4	22-26
McDonald JL	A rapid extraction and GC/MS methodology for the identification of psilocyn in mushroom/chocolate concoctions.	2003	1	3-4	177-183
McGehee MC	Etodolac: An analytical profile.	2008	6	3-4	104-108
McGill JW	Discovery of an interesting temperature effect on the sensitivity of cobalt thiocyanate test for cocaine.	2008	6	1-2	26-35
McKibben TD	Characterization of the "indanylamphetamines."	2005	3	1-2	3-10
McKibben TD	Analytical profiles for five "designer" tryptamines.	2005	3	1-2	54-68
Miller EE	Chiral separation of methamphetamine and related compounds using capillary electrophoresis with dynamically coated capillaries.	2011	8	1	24-28

Miyaguchi H	Analytical profiles for 3,4,5-, 2,4,5-, and 2,4,6-trimethoxyamphetamine.	2006	4	1-4	12-23
Miyasaka K	Profiling of ecstasy tablets seized in Japan.	2003	1	3-4	169-176
Mohrhaus AS	Identification and determination of carisoprodol in tablets by liquid chromatography/mass spectrometry.	2004	2	1-4	36-41
Moore JM	The discoloration of illicit drug samples.	2008	6	3-4	128-145
Morris JA	Analytical profile of modafinil.	2005	3	1-2	27-30
Mrazik TJ	Laboratory analysis of the conversion of pseudoephedrine to methamphetamine from over-the-counter products.	2005	3	1-2	11-15
Nagano K	Profiling of ecstasy tablets seized in Japan.	2003	1	3-4	169-176
Nazarudin M	The identification of N,N-dimethylamphetamine (DMA) in an exhibit in Malaysia.	2003	1	3-4	163-168
Newell CJ	Potency of cannabis seized in central Florida during June 2002.	2003	1	1-2	37-39
Nguyen MC	N-Acetylbenzocaine: Formation via transacetylation of benzocaine and acetylsalicylic acid in a cocaine exhibit.	2010	7	1	7-11
Odeneal II NG	Hydroxyzine: An analytical profile.	2004	2	1-4	17-21
Orlando PM	Identification of diltiazem impurities/artifacts during the analysis of illicit cocaine exhibits containing diltiazem.	2008	6	3-4	90-103
Palmbach T	An overview of DNA methods for the identification and individualization of marijuana.	2003	1	3-4	196-207
Panicker S	Quantitation of the major alkaloids in opium from Papaver setigerum DC.	2007	5	1-4	13-19
Peters DE	Diltiazem HCl: An analytical profile.	2004	2	1-4	11-16
Phelan CP	Quantitation and enantiomeric determination of propoxyphene using capillary zone electrophoresis.	2005	3	1-2	31-38
Phelan CP	Identification of bufotenine in yopo seeds via GC/IRD.	2006	4	1-4	3-11
Piñero EL	Isolation of cis-cinnamoylcocaine from crude illicit cocaine via alumina column chromatography.	2006	4	1-4	37-41
Piñero EL	Quantitation of cocaine by gas chromatography-flame ionization detection utilizing isopropylcocaine as a structurally related internal standard.	2006	4	1-4	47-53
Placke AD	The isolation, identification, and quantitation of dimethyltryptamine (DMT) in Mimosa hostilis.	2007	5	1-4	41-52
Pollard MM	Characterization of three methcathinone analogs: 4-Methylmeth-cathinone, methylone, and bk-MBDB.	2010	7	2	42-49
Puetz M	Identification of a new amphetamine type stimulant: 3,4-Methylenedioxy-(2-hydroxyethyl)amphetamine (MDHOET).	2005	3	3-4	166-174
Ramsey RT	Improvised explosive device disguised as a smoking pipe.	2004	2	1-4	34-35

Reed EC	The characterization of three FLY compounds.	2007	5	1-4	26-33
Ritter D	Discovery of an interesting temperature effect on the sensitivity of cobalt thiocyanate test for cocaine.	2008	6	1-2	26-35
Rodriguez WR	Synthesis of trans-4-methylaminorex from norephedrine and potassium cyanate.	2005	3	3-4	154-165
Rodriguez-Cruz SE	Analysis and characterization of designer tryptamines using electrospray ionization mass spectrometry (ESI-MS).	2005	3	3-4	107-129
Rodriguez-Cruz SE	Analysis and characterization of psilocybin and psilocin using liquid chromatography-electrospray ionization mass spectrometry (LC-ESI-MS) with collision-induced-dissociation (CID) and source-induced-dissociation (SID).	2005	3	3-4	175-182
Rodriguez-Cruz SE	Rapid screening of seized drug exhibits using desorption electrospray ionization mass spectrometry (DESI-MS).	2008	6	1-2	10-25
Roesch DM	Isolation of methamphetamine from 1-(1',4'-cyclohexadienyl)-2-methylaminopropane (CMP) using potassium permanganate.	2008	6	1-2	46-54
Rogers DH	Laboratory analysis of the conversion of pseudoephedrine to methamphetamine from over-the-counter products.	2005	3	1-2	11-15
Ropero-Miller JD	Comparison of the novel direct analysis in real time time-of-flight mass spectrometry (AccuTOF-DART <sup>TM</sup> ) and signature analysis for the identification of constituents of refined illicit cocaine.	2007	5	1-4	34-40
Sanderson RM	Identification of N-methylbenzylamine hydrochloride, N-ethylbenzylamine hydrochloride, and N-isopropylbenzylamine hydrochloride.	2008	6	1-2	36-45
Sarwar M	A rapid extraction and GC/MS methodology for the identification of psilocyn in mushroom/chocolate concoctions.	2003	1	3-4	177-183
Sarwar M	A new, highly specific color test for ketamine.	2006	4	1-4	24-28
Sarwar M	A specific screening color test for diazepam.	2008	6	3-4	63-71
Shah MN	Laboratory analysis of the conversion of pseudoephedrine to methamphetamine from over-the-counter products.	2005	3	1-2	11-15
Shimmon RG	Color tests for the preliminary identification of methcathinone and analogues of methcathinone.	2012	9	1	27-32
Sides JD	Discovery of an interesting temperature effect on the sensitivity of cobalt thiocyanate test for cocaine.	2008	6	1-2	26-35
Skinner HF	Desloratadine: The reaction byproduct of the reduction of cold tablets containing Loratadine with hydriodic acid/red phosphorus.	2005	3	1-2	69-77
Skinner HF	Reduction of phenylephrine with hydriodic acid/red phosphorus or iodine/red phosphorus: 3-Hydroxy-N-methylphenethylamine.	2005	3	3-4	142-153
Smith PR	Identification and quantitation of hydromorphone hydrochloride in Palladone® (extended time-release) capsules.	2005	3	1-2	39-45
Smith PR	The characterization of 4-methoxy-N-ethylamphetamine hydrochloride.	2006	4	1-4	42-46
Smith RM	The mass spectrum of cocaine: Deuterium labeling and MS/MS studies.	2010	7	1	16-41
Spratley TK	Analytical profiles for five "designer" tryptamines.	2005	3	1-2	54-68

Spratley TK	The characterization of 4-methoxy-N-ethylamphetamine hydrochloride.	2006	4	1-4	42-46
Steiner RR	A rapid technique for the confirmation of iodine and red phosphorus using direct analysis in real time and accurate mass spectrometry.	2010	7	1	3-6
Stout PR	Comparison of the novel direct analysis in real time time-of-flight mass spectrometry (AccuTOF-DART <sup>TM</sup> ) and signature analysis for the identification of constituents of refined illicit cocaine.	2007	5	1-4	34-40
Taflaga S	Color tests for the preliminary identification of methcathinone and analogues of methcathinone.	2012	9	1	27-32
Taylor CM	Psychotria viridis – A botanical source of dimethyltryptamine (DMT).	2003	1	1-2	18-22
Taylor S	A specific screening color test for diazepam.	2008	6	3-4	63-71
Thompson RA	Eszopiclone (Lunesta <sup>TM</sup> ): An analytical profile.	2006	4	1-4	29-36
Toole KE	Color tests for the preliminary identification of methcathinone and analogues of methcathinone.	2012	9	1	27-32
Tsujikawa K	Analytical profiles for 3,4,5-, 2,4,5-, and 2,4,6-trimethoxyamphetamine.	2006	4	1-4	12-23
Tytgat J	A rapid and simple GC/MS screening method for 4-methoxyphenol in illicitly prepared 4-methoxyamphetamine (PMA).	2003	1	3-4	184-189
Tytgat J	Anise oil as a precursor for 2-alkoxy-5-methoxybenzaldehydes.	2004	2	1-4	4-10
Valentino AMM	Levamisole: An analytical profile.	2005	3	3-4	134-137
Vohlken BA	Instrumental separation of 3,4-methylenedioxyamphetamine (MDA) from 1-(3,4-methylenedioxyphenyl)-2-propanol, a co-eluting compound.	2003	1	1-2	32-36
Waumans D	A rapid and simple GC/MS screening method for 4-methoxyphenol in illicitly prepared 4-methoxyamphetamine (PMA).	2003	1	3-4	184-189
Waumans D	Anise oil as a precursor for 2-alkoxy-5-methoxybenzaldehydes.	2004	2	1-4	4-10
Wesley JF	Osmolality - A novel and sensitive tool for detection of tampering of beverages adulterated with ethanol, $\gamma$ -butyrolactone, and 1,4-butanediol, and for detection of dilution-tampered Demerol syringes.	2003	1	1-2	8-17
Weyermann C	Identification of a new amphetamine type stimulant: 3,4-Methylenedioxy-(2-hydroxyethyl)amphetamine (MDHOET).	2005	3	3-4	166-174
Wisniewski ES	Dehydrochlormethyltestosterone: An analytical profile.	2006	4	1-4	54-65
Wojno HL	Hydroxyzine: An analytical profile.	2004	2	1-4	17-21
Wojno HL	Quantitation of the major alkaloids in opium from Papaver setigerum DC.	2007	5	1-4	13-19
Woods P	Improvised explosive device disguised as a smoking pipe.	2004	2	1-4	34-35
Yohannan JC	The characterization of 3,4-methylenedioxypyrovalerone (MDPV).	2010	7	1	12-15

Zelkowicz A	Evaluation of ninhydrin analogues and other electron-deficient compounds as spray reagents for drugs on thin layer chromatograms.	2003	1	1-2	23-31
Zimmerman MM	The identification of 5-methoxy-α-methyltryptamine (5-MeO-AMT).	2003	1	3-4	158-162
Ziska LH	Quantitation of the major alkaloids in opium from Papaver setigerum DC.	2007	5	1-4	13-19
Zrcek F	Identification of a new amphetamine type stimulant: 3,4-Methylenedioxy-(2-hydroxyethyl)amphetamine (MDHOET).	2005	3	1-4	166-174

# **Microgram Journal Index (by Subject)**

Subject	Title	Year	Vol	No	Page
1-(1,3-benzodioxol-5-yl)-2- (methylamino)butan-1-one (butylone, bk-MBDB)	Characterization of three methcathinone analogs: 4-Methylmethcathinone, methylone, and bk-MBDB.	2010	7	2	42-49
1-(3,4-Methylenedioxyphenyl)-2- propanol (in MDA)	Instrumental separation of 3,4-methylenedioxyamphetamine (MDA) from 1-(3,4-methylene-dioxyphenyl)-2-propanol, a co-eluting compound.	2003	1	1-2	32-36
1,4-Butanediol	1,4-Butanediol (BD) - Forensic profile.	2003	1	1-2	44-54
1-Dehydromethandrostenolone	The identification of 1-dehydromethandrostenolone.	2005	3	3-4	186-189
2-(5-Methoxy-1-benzofuran-3-yl)-N,N-dimethylethanamine (5-MeO-BFE)	The characterization of 2-(5-methoxy-1-benzofuran-3-yl)-N,N-dimethylethanamine (5-MeO-BFE) and differentiation from its N-ethyl analog.	2012	9	1	39-45
2β-(1,2,4-oxadiazol-5-methyl)-3β- phenyltropane (RTI-126)	Characterization of 2β-(1,2,4-oxadiazol-5-methyl)-3β-phenyltropane ("RTI-126").	2011	8	1	3-11
3,4,5-, 2,4,5-, and 2,4,6-Trimethoxy- amphetamine	Analytical profiles for 3,4,5-, 2,4,5-, and 2,4,6-trimethoxy-amphetamine.	2006	4	1-4	12-23
3,4-Methylenedioxy-(2-hydroxyethyl)- amphetamine	Identification of a new amphetamine type stimulant: 3,4-Methylenedioxy-(2-hydroxyethyl)amphetamine (MDHOET).	2005	3	3-4	166-174
3,4-Methylenedioxymethamphetamine (profiling)	Profiling of ecstasy tablets seized in Japan.	2003	1	3-4	169-176
3,4-Methylenedioxymethcathinone (methylone)	Characterization of three methcathinone analogs: 4-Methylmethcathinone, methylone, and bk-MBDB.	2010	7	2	42-49
3,4-Methylenedioxypyrovalerone (MDPV)	The characterization of 3,4-methylenedioxypyrovalerone (MDPV).	2010	7	1	12-15
3-Hydroxy-N-methylphenethylamine (from reduction of phenylephrine)	Reduction of phenylephrine with hydriodic acid/red phosphorus or iodine/red phosphorus: 3-Hydroxy-N-methyl-phenethylamine.	2005	3	3-4	142-153
4-Iodo-2-aminoindan	The characterization of 4- and 5-iodo-2-aminoindan.	2012	9	1	18-26
4-Methoxy-N-ethylamphetamine	The characterization of 4-methoxy-N-ethyl-amphetamine hydrochloride.	2006	4	1-4	42-45

A rapid and simple GC/MS screening method for 4-methoxy- phenol in illicitly prepared 4-methoxyamphetamine (PMA).	2003	1	3-4	184-189
Characterization of three methcathinone analogs: 4-Methylmethcathinone, methylone, and bk-MBDB.	2010	7	2	42-49
4-Methoxyphencyclidine: An analytical profile.	2011	8	2	39-42
Letter to the Editor regarding: Abbreviations for 5- and 6-(2-aminopropyl)-2,3-dihydrobenzofuran vs. 5- and 6-(2-aminopropyl)benzofuran: A clarification of "APB" and "APDB."	2012	9	1	46
Letter to the Editor regarding: Abbreviations for 5- and 6-(2-aminopropyl)-2,3-dihydrobenzofuran vs. 5- and 6-(2-aminopropyl)benzofuran: A clarification of "APB" and "APDB."	2012	9	1	46
The characterization of 4- and 5-iodo-2-aminoindan.	2012	9	1	18-26
The identification of 5-methoxy-α-methyltryptamine (5-MeO-AMT).	2003	1	3-4	158-162
The characterization of α-pyrrolidinopentiophenone.	2012	9	1	33-38
Detection of phenethylamine, amphetamine, and tryptamine imine by-products from an acetone extraction.	2011	8	1	29-35
The characterization of anastrozole.	2011	8	1	12-15
Anise oil as a precursor for 2-alkoxy-5-methoxy-benzaldehydes.	2004	2	1-4	4-10
Identification of N-methylbenzylamine hydrochloride, N-ethylbenzylamine hydrochloride, and N-isopropyl- benzylamine hydrochloride.		6	1-2	36-45
Identification of bufotenine in yopo seeds via GC/IRD.	2006	4	1-4	3-11
Identification and determination of carisoprodol in tablets by liquid chromatography/mass spectrometry.	2004	2	1-4	36-41
Isolation of cis-cinnamoylcocaine from crude illicit cocaine via alumina column chromatography.		4	1-4	37-41
A study of acids used for the acidified cobalt thiocyanate test for cocaine base.		1	1-2	40-43
Discovery of an interesting temperature effect on the sensitivity of cobalt thiocyanate test for cocaine.	2008	6	1-2	26-35
Comparison of the novel direct analysis in real time time-of- flight mass spectrometry (AccuTOF-DART <sup>TM</sup> ) and signature analysis for the identification of constituents of refined illicit cocaine.		5	1-4	34-40
The discoloration of illicit drug samples.	2008	6	3-4	128-145
Determination of cocaine in various South American commercial coca products.	2008	6	3-4	109-113
	phenol in illicitly prepared 4-methoxyamphetamine (PMA).  Characterization of three metheathinone analogs: 4-Methylmetheathinone, methylone, and bk-MBDB.  4-Methoxyphencyclidine: An analytical profile.  Letter to the Editor regarding: Abbreviations for 5- and 6-(2-aminopropyl)-2,3-dihydrobenzofuran vs. 5- and	phenol in illicitly prepared 4-methoxyamphetamine (PMA).  Characterization of three methcathinone analogs: 4-Methylmethcathinone, methylone, and bk-MBDB.  4-Methoxyphencyclidine: An analytical profile.  Letter to the Editor regarding: Abbreviations for 5- and 6-(2-aminopropyl)-2,3-dihydrobenzofuran vs. 5- and 6-(2-aminopropyl)benzofuran: A clarification of "APB" and "APDB."  The characterization of 4- and 5-iodo-2-aminoindan.  2012  Detection of phenethylamine, amphetamine, and tryptamine imine by-products from an acetone extraction.  The characterization of anastrozole.  2011  Anise oil as a precursor for 2-alkoxy-5-methoxy-benzaldehydes.  Identification of N-methylbenzylamine hydrochloride, N-ethylbenzylamine hydrochloride, and N-isopropyl-benzylamine hydrochloride.  Identification of bufotenine in yopo seeds via GC/IRD.  Identification of bufotenine in yopo seeds via GC/IRD.  Identification and determination of carisoprodol in tablets by liquid chromatography/mass spectrometry.  Isolation of cis-cinnamoylcocaine from crude illicit cocaine via alumina column chromatography.  A study of acids used for the acidified cobalt thiocyanate test for cocaine base.  Discovery of an interesting temperature effect on the sensitivity of cobalt thiocyanate test for cocaine base.  Comparison of the novel direct analysis in real time time-of-flight mass spectrometry (AccuTOF-DART™) and signature analysis for the identification of constituents of refined illicit cocaine.  2007  The discoloration of illicit drug samples.	phenol in illicitly prepared 4-methoxyamphetamine (PMA).  Characterization of three metheathinone analogs: 4-Methylmetheathinone, methylone, and bk-MBDB.  2010  7  4-Methoxypheneyelidine: An analytical profile.  Letter to the Editor regarding: Abbreviations for 5- and 6-(2-aminopropyl)-2,3-dihydrobenzofuran vs. 5- and 6-(2-aminopropyl)benzofuran: A clarification of "APB" and "APDB."  Letter to the Editor regarding: Abbreviations for 5- and 6-(2-aminopropyl)benzofuran: A clarification of "APB" and "APDB."  Letter to the Editor regarding: Abbreviations for 5- and 6-(2-aminopropyl)benzofuran: A clarification of "APB" and "APDB."  The characterization of 4- and 5-iodo-2-aminoindan.  2012  9  The identification of 5-methoxy-α-methyltryptamine (5-MeO-AMT).  The characterization of α-pyrrolidinopentiophenone.  2012  9  Detection of phenethylamine, amphetamine, and tryptamine imine by-products from an acetone extraction.  2011  8  Anise oil as a precursor for 2-alkoxy-5-methoxy-benzaldehydes.  Lidentification of N-methylbenzylamine hydrochloride, N-ethylbenzylamine hydrochloride, and N-isopropyl-benzylamine hydrochloride.  Lidentification of bufotenine in yopo seeds via GC/IRD.  2004  Lidentification of bufotenine in yopo seeds via GC/IRD.  Lidentification of bufotenine in yopo seeds via GC/IRD.  Lidentification and determination of carisoprodol in tablets by liquid chromatography/mass spectrometry.  Lisolation of cis-cinnamoylcocaine from crude illicit cocaine via alumina column chromatography.  A study of acids used for the acidified cobalt thiocyanate test for cocaine base.  Discovery of an interesting temperature effect on the sensitivity of cobalt thiocyanate test for cocaine.  Comparison of the novel direct analysis in real time time-of-flight mass spectrometry (AccuTOF-DART™) and signature analysis for the identification of constituents of refined illicit cocaine.  Comparison of the novel direct analysis in real time time-of-flight mass spectrometry (AccuTOF-DART™) and signature analysis for the identification	phenol in illicitly prepared 4-methoxyamphetamine (PMA).  Characterization of three methcathinone analogs: 4-Methylmethcathinone, methylone, and bk-MBDB.  2010 7 2  4-Methoxyphencyclidine: An analytical profile.  Letter to the Editor regarding: Abbreviations for 5- and 6-(2-aminopropyl)-2,3-dihydrobenzofuran vs. 5- and 6-(2-aminopropyl)-2,2-dihydrobenzofuran v

Cocaine (MS/MS studies)	The mass spectrum of cocaine: Deuterium labeling and MS/MS studies.	2010	7	1	16-41
Cocaine base (containing mannitol)	Assessment of the volatility (smokeability) of cocaine base containing 50 percent mannitol: Is it a smokeable form of "crack" cocaine?	2005	3	3-4	130-133
Cocaine base (stability study)	"Crack" cocaine: A study of stability over time and temperature.	2008	6	3-4	114-127
Cocaine base (study of Base Llavada)	An in-depth study of perivian Base Llavada ("Washed Base") technique for purification of crude cocaine base.	2008	6	3-4	72-81
Dehydrochlormethyltestosterone	Dehydrochlormethyltestosterone: An analytical profile.	2006	4	1-4	54-65
DESI-MS (screeining of drug exhibits)	Rapid screening of seized drug exhibits using desorption electrospray ionization mass spectrometry (DESI-MS).	2008	6	1-2	10-25
Desloratadine	Desloratadine: The reaction byproduct of the reduction of cold tablets containing Loratadine with hydriodic acid/red phosphorus.	2005	3	1-2	69-77
Diazepam (color test)	A specific screening color test for diazepam.	2008	6	3-4	63-71
Diltiazem	Diltiazem HCl: An analytical profile.	2004	2	1-4	11-16
Diltiazem (impurities and artifacts)	Identification of diltiazem impurities/artificats during the analysis of illicit cocaine exhibits containing diltiazem.	2008	6	3-4	90-103
Dimethoxymethylphenethylamines	Spectral characterization of 2,4-dimethoxy-3-methylphenethylamine and comparison to 2,5-dimethoxy-4-methylphenethylamine ("2C-D").	2005	3	1-2	16-26
Dimethylamphetamine	The identification of N,N-dimethylamphetamine (DMA) in an exhibit in Malaysia.		1	3-4	163-168
Dimethylcathinone	Synthesis and identification of N,N-dimethylcathinone hydrochloride.	2007	5	1-4	3-12
Dipropionylmorphine (internal standard for quantitation of heroin)	The use of dipropionylmorphine as a structurally-related internal standard for gas chromatographic quantitation of heroin.	2008	6	1-2	3-9
Duquenois-Levine and cobalt thiocyanate tests (alternate solvents)	Specificity of the Duquenois-Levine and cobalt thiocyanate tests substituting methylene chloride or butyl chloride for chloroform.		3	3-4	183-185
Eszopiclone (Lunesta <sup>TM</sup> )	Eszopiclone (Lunesta <sup>TM</sup> ): An analytical profile.		4	1-4	29-36
Ethylphenidate	Ethylphenidate: An analytical profile		8	2	58-61
Etodalac	Etodolac: An analytical profile.		6	3-4	104-108
Explosive device (disguised as a drug smoking pipe)	Improvised explosive device disguised as a smoking pipe.	2004	2	1-4	34-35
FLY Compounds	The characterization of three FLY compounds.	2007	5	1-4	26-33

γ-Hydroxybutyrate, silver salt	γ-Hydroxybutyrate, silver salt (AgGHB): Identification of γ-hydroxybutyrate (GHB) via conversion to the silver salt.	2005	3	1-2	46-53
Hydroxyzine	Hydroxyzine: An analytical profile.	2004	2	1-4	17-22
Indanylamphetamines	Characterization of the "indanylamphetamines."	2005	3	1-2	3-10
Iodine (analysis by AccuTOF-DART <sup>TM</sup> )	A rapid technique for the confirmation of iodine and red phosphorus using direct analysis in real time and accurate mass spectrometry.	2010	7	1	3-6
Isopropylcocaine (internal standard for quantitation of cocaine)	Quantitation of cocaine by gas chromatography-flame ionization detection utilizing isopropyl-cocaine as a structurally related internal standard.	2006	4	1-4	47-53
Ketamine (color test)	A new, highly specific color test for ketamine.	2006	4	1-4	24-28
Letrozole (Femara®)	Letrozole (Femara®).	2003	1	3-4	190-195
Levamisole	Levamisole: An analytical profile.	2005	3	3-4	134-137
Levamisole	Identification of levamisole impurities found in illicit cocaine exhibits.	2008	6	3-4	82-89
Levamisole (acetylation impurities in heroin samples)	Identification of levamisole and lidocaine acetylation reaction impurities found in heroin exhibits.	2011	8	1	16-23
Literature Review	Detection and analysis of drugs of forensic interest, 1992 - 2001; A literature review.	2003	1	1-2	55-153
Marijuana (analysis for fatty acids in)	Analysis of fatty acids in marijuana (Cannabis sativa leaf).	2007	5	1-4	20-26
Marijuana (local survey of potency)	Potency of cannabis seized in central Florida during June 2002.	2003	1	1-2	37-39
Marijuana (overview of DNA methods for analysis of)	An overview of DNA methods for the identification and individualization of marijuana.	2003	1	3-4	196-207
Methamphetamine (chiral separation)	Chiral separation of methamphetamine and related compounds using capillary electrophoresis with dynamically coated capillaries.		8	1	24-28
Methamphetamine (isolation from 1-(1',4'-cyclohexadienyl)-2-methylaminopropane)	Isolation of methamphetamine from 1-(1',4'-cyclohexadienyl)-2-methylaminopropane (CMP) using potassium permanganate.		6	1-2	46-54
Methamphetamine (preparation from over-the-counter PSE-containing products)	Laboratory analysis of the conversion of pseudoephedrine to methamphetamine from over-the-counter products.		3	1-2	11-15
Methcathinone Analogues (color tests)	Color tests for the preliminary identification of methcathinone and analogues of methcathinone.	2012	9	1	27-32
Methiopropamine	Methiopropamine: An analytical profile.	2011	8	2	53-57
Methorphan	Rapid chiral separation of dextro- and levo- methorphan using capillary electrophoresis with dynamically coated capillaries.	2005	3	3-4	138-141

Methoxetamine	The characterization of 2-(3-methoxyphenyl)-2-(ethylamino)-cyclohexanone (methoxetamine).	2012	9	1	3-17
Methylenedioxy-2-aminoindans	Characterization of the "methylenedioxy-2-aminoindans."	2011	8	2	43-52
Mimosa hostilis	The isolation, identification, and quantitation of dimethyl-tryptamine (DMT) in Mimosa hostilis.	2007	5	1-4	41-50
Modafinil	Analytical profile of modafinil.	2005	3	1-2	27-31
N-Acetylbenzocaine (formation via transacetylation)	N-Acetylbenzocaine: Formation via trans-acetylation of benzocaine and acetylsalicylic acid in a cocaine exhibit.	2010	7	1	7-11
Nimetazepam (in Erimin-5 tablets)	The quantitation of nimetazepam in Erimin-5 tablets and powders by reverse-phase HPLC.	2004	2	1-4	27-33
Ninhydrin analogues (as spray reagents for TLC)	Evaluation of ninhydrin analogues and other electron- deficient compounds as spray reagents for drugs on thin layer chromatograms.	2003	1	1-2	23-31
N-Methylphthalimide	The characterization of N-methylphthalimide (NMP).	2011	8	2	36-38
Osmolality	Osmolality - A novel and sensitive tool for detection of tampering of beverages adulterated with ethanol, $\gamma$ -butyro-lactone, and 1,4-butanediol, and for detection of dilution-tampered Demerol syringes.	2003	1	1-2	23-31
Palladone (hydromorphone hydrochloride)	Identification and quantitation of hydromorphone hydro- chloride in Palladone® (extended time-release) capsules.	2005	3	1-2	39-45
Papaver setigerum (analysis of)	Quantitation of the major alkaloids in opium from Papaver setigerum DC.	2007	5	1-4	13-19
Phenethylamine (imine by-products)	Detection of phenethylamine, amphetamine, and tryptamine imine by-products from an acetone extraction.	2011	8	1	29-35
Phenethylamines and methylenedioxy- amphetamines (analysis by LC-AP- ESI-MS)	Identification of phenethylamines and methylenedioxy- amphetamines using liquid chromatography atmospheric pressure electrospray ionization mass spectrometry.	2005	3	1-2	78-100
Phentermine (in Ionamin 30 capsules)	Qualitative and quantitative analysis of Ionamin 30 capsules (containing a time-release formulation of phentermine).	2006	4	1-4	66-69
Phosphorus (analysis by AccuTOF-DART <sup>TM</sup> )	A rapid technique for the confirmation of iodine and red phosphorus using direct analysis in real time and accurate mass spectrometry.		7	1	3-6
Piperazines	Mass spectra of select benzyl- and phenyl- piperazine designer drugs.		2	1-4	22-26
Propoxyphene	Quantitation and enantiomeric determination of propoxyphene using capillary zone electrophoresis.		3	1-2	31-38
Psilocybe mushroom/chocolate concoctions	A rapid extraction and GC/MS methodology for the identification of psilocyn in mushroom/chocolate concoctions.	2003	1	3-4	177-183
Psilocybin and psilocin (analysis by LC-ESI-MS)	Analysis and characterization of psilocybin and psilocin using liquid chromatography-electrospray ionization mass spectrometry (LC-ESI-MS) with collision-induced-dissociation (CID) and source-induced-dissociation (SID).		3	3-4	175-185
Psychotria viridis	2003	1	1-2	18-22	

SWGDRUG	Report of the Scientific Working Group for the Analysis of Seized Drugs (SWGDRUG) conference (Montreal).	2003	1	3-4	208-236
trans-4-Methylaminorex	Synthesis of trans-4-methylaminorex from norephedrine and potassium cyanate.	2005	3	3-4	154-165
Tryptamine (imine by-products)	Detection of phenethylamine, amphetamine, and tryptamine imine by-products from an acetone extraction.			1	29-35
Tryptamines	Analytical profiles for five "designer" tryptamines.	2005	3	1-2	54-68
Tryptamines (analysis by ESI-MS)	Analysis and characterization of designer tryptamines using electrospray ionization mass spectrometry (ESI-MS).		3	3-4	107-129

	DEA State and	<b>Local Forensic</b>	Chemi	ist Sen	ninar Applica	ation	
Name: (PRIN ON CERTIFI	T NAME EXACTLY AS CATE)	S IT IS TO APPEA	R Titl	e:			
Employer:							
Your Office N	Mailing Address (include	city, state, and zipc	ode):			Length of Service:	
Business Tele	ephone:	Business Fax:			Date of A	pplication:	
( )	-	( ) -	-				
Email Addres	SS:						
		Educa	ation				
	College or Universit	у	Degree	9	N	lajor	
	Please Check Which	h Techniques or Equ	uipment	Are Use	ed in Your Labor	ratory	
Colo	or Tests			UV			
Colu	mn Chromatography			IR			
Micr	ocrystal Tests			CE			
Thin	Layer Chromatography			GC/MS	3		
GC				Other (please specify)			
HPL	С			Other (please specify)			
Indicate Anal	ytical Problem(s) Nomin	ee Would Like to H	ave Cov	ered:			
Choice of Ser 1st Choice:	minar Dates:	2	2nd Choi	ce.			
	hief/Director:		Zna Cnoi	<u> </u>			
Printed Name	::		Signature	e:			
Title:		т	Date:				
1100.			Jaic.				
Phone:							